SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 15:58:19 ON 24 MAY 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 24 May 2005 VOL 142 ISS 22 FILE LAST UPDATED: 23 May 2005 (20050523/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s propene oxide 71573 PROPENE 1559644 OXIDE

L1 410 PROPENE OXIDE (PROPENE (W) OXIDE)

=> s l1 and hydrazine 60378 HYDRAZINE

L2 5 L1 AND HYDRAZINE

=> d 1-5 fbib abs fhitstr

L2 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:451673 CAPLUS

DN 141:8870

TI Process for the purification of crude propene oxide

IN Hofen, Willi; Haas, Thomas; Woll, Wolfgang; Thiele, Georg

PA Germany

SO U.S. Pat. Appl. Publ., 8 pp.

e) · .---

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

DATE APPLICATION NO. PATENT NO. KIND DATE --------------------PΙ US 2004106811 A1 20040603 US-2003=7/23/27/0 20031126 US 2002-428932P P 20021126

AB A process for the purification of a crude propene oxide containing methanol and acetaldehyde by a continuously operated extractive distillation in a distillation column having a feeding point for the crude propene oxide, comprises the following steps: (a) feeding an extraction solvent to the distillation column at a point of said column above the feeding point of the crude propene oxide in an amount effective for lowering the volatility of methanol relative to the volatility of propene oxide; (b) feeding a compound containing an unsubstituted NH2 group and capable of reacting with acetaldehyde under the conditions of distillation to form compds. with a b.p. higher than that of propene oxide to the distillation column at a point above the feeding point of the crude propene oxide or admixing said compds. with the crude propene oxide feed to the distillation column; (c) withdrawing a purified

روست در الي احمد دو در ال propene oxide from the distillation column at a position above feeding points of the extraction solvent and the compound containing an unsubstituted NH2 group. The purified propene oxide contains less

```
than 100 ppm methanol and less than 100 ppm acetaldehyde.
L2
     ANSWER 2 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
     2004:446920 CAPLUS
AN
DN
     141:7631
     Extractive distillation process for the purification of crude propylene
TΙ
IN
     Hofen, Willi; Haas, Thomas; Woell, Wolfgang; Thiele, Georg
PA
     Degussa AG, Germany; Uhde GmbH
     Eur. Pat. Appl., 11 pp.
SO
     CODEN: EPXXDW
DT
     Patent
LΑ
     English
FAN.CNT 1
                        KIND
     PATENT NO.
                                DATE
                                           APPLICATION NO.
                                                                   DATE
                         ----
                                ------
                                             -----
                                                                   -----
PΙ
     EP 1424332
                         A1
                                20040602 EP 2002-26240
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
     WO 2004048355
                                20040610
                                           WO 2003-EP13212
                          A1
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
             OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
             TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                                             EP 2002-26240 A 20021126
AΒ
     A process is described for the purification of a crude propylene oxide containing
     methanol and acetaldehyde by a continuously operated extractive distillation
     using an extraction solvent lowering the volatility of methanol and feeding a
     compound containing an unsubstituted NH2 group (e.g., hydrazine)
     capable of reacting with acetaldehyde to a distillation column at a point above
     the feeding point of the crude propene oxide to give a
     purified propylene oxide containing <100 ppm methanol and <100 ppm
     acetaldehyde. A process for the catalytic epoxidn. of propylene that
     includes this purification stage is presented.
L2
     ANSWER 3 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
AN
     1970:54724 CAPLUS
DN
     72:54724
     Hydroxyaminimines [hydroxyhydrazinium hydroxide inner salts]
TТ
ΙN
     Slagel, Robert C.
     Ashland Oil and Refining Co.
PA
SO
     Ger. Offen., 18 pp.
     CODEN: GWXXBX
DT
     Patent
LΑ
     German
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                           APPLICATION NO.
                                                                   DATE
                         ----
                                 -----
                                             -----
ΡI
    DE 1914032
                          Α
                                19691016
                                             DE 1969-1914032
                                                                   19690319
                                             US 1968-714323
                                                                A 19680319
     US 3555095
                          Α
                                19710112
                                             US 1968-714323
                                                                    19680319
```

JP 49019253 **B4** 19740516 JP 1969-20164 19690318 US 1968-714323 A 19680319 BE 730098 Α 19690901 BE 1969-730098 19690319 US 1968-714323 A 19680319 GB 1226496 Α 19710331 GB 1969-1226496 19690319 US 1968-714323 A 19680319 tert-BuOH, (120 ml) is stirred 48 hr in a closed vessel at room temperature with $_{\mathbf{v}}$

AB 0.2 mole Me2NNH2 and 0.2 mole propene oxide. The product is cooled in an ice bath and saturated with HCl to give MeCH(OH)CH2N+Me2N-H. Similar compds. are prepared from ethylene oxide and other asym. substituted hydrazines.

```
L2
     ANSWER 4 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
AN
     1950:33379 CAPLUS
DN
     44:33379
OREF 44:6402d-e
     Research in the field of cyclic acetals of hydroxycarbonyl compounds. I.
     Synthesis and properties of the methyl lactolide of methylbenzoylcarbinol
     (1-methoxy-1-phenyl-1-propene oxide)
     Temnikova, T. I.; Kropacheva, E. N.
ΑU
CS
     Leningrad State Univ.
SO
     Zhurnal Obshchei Khimii (1949), 19 (No. 10), a383-93
     CODEN: ZOKHA4; ISSN: 0044-460X
DT
     Journal
LΑ
     English
AB
     See C.A. 44, 1929b.
     ANSWER 5 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
L2
AN
     1950:9997 CAPLUS
DN
     44:9997
OREF 44:1929b-e
     Cyclic acetals of hydroxycarbonyl compounds. I. Preparation and properties
     of the methyl lactolide of methylbenzoylcarbinol (1 -methoxy-1-phenyl-1-
     propene oxide)
     Temnikova, T. I.; Kropacheva, E. N.
ΑU
CS
     Kafedra Stroeniya Org. Soedinenii Leningrad. Gosudarst. Ordena Lenina
     Univ. im. A. A. Zhdanova
SO
     Zhurnal Obshchei Khimii (1949), 19, 1917-26
     CODEN: ZOKHA4; ISSN: 0044-460X
DT
     Journal
     Unavailable
LΑ
GΙ
     For diagram(s), see printed CA Issue.
AΒ
     PhCOCHBrMe (32 g.) in Et20 treated slowly with a suspension of MeONa (from
     10 g. Na) in Et20 yielded 10 g. 1-methoxy-l-phenyl-1-propene
     oxide, Ph (MeO) C.CHMe.O, b4 63-5°, d419 1.0521, nα19
     1.49604, which polymerizes on standing (mol. weight doubles in 24 hrs.). The
     product (0.5 g.) treated with 1.5 g. PhNHNH2 in EtOH containing a little AcOH,
     heated 0.5 hr. on a steam bath, and let stand overnight gave 0.45 g.
     PhC(:NNHPh) CHMeNHNHPh, m. 126° (from EtOH). Heating the oxide
     with H2SO4 in all dilns. gave mostly tars; with 5% H2SO4 there was
     obtained a very low yield of a solid, m. 208° (C20H24O4), and
     phenylacetylcarbinol, b12 120-1° (semicarbazone, m. 189°).
     Addition of the oxide (8.5 g.) to 5% H2SO4 preheated to 80° and
     stirring 1.5 hrs. on a steam bath gave 3.43 g. methylbenzoylcarbinol, b1.5
     83-5°, n\alpha19 1.54571 (forms a semicarbazide, m. 230°,
     on prolonged standing with the reagent). Reaction of this hydrolysis
     product with PhMgBr gave 1,1-diphenyl-1,2-propanediol, m. 91-2°
     (from petr. ether), which gives Ph2CO on chromic acid oxidation. Addition of
     3 ml. 3% MeOH-HCl to 0.5 g. oxide gave, after vigorous action, 0.3 g.
     2,5-dimethoxy-2,5-dimethyl-3,6-diphenyl-p-dioxane, m. 251° (from
     C6H6). The nomenclature of olefin oxides and lactols is discussed; the
     use of the prefix cyclo for the ring forms is urged.
=>
```

```
---Logging off of STN---
```

Executing the logoff script...

=> LOG Y

=> s propene oxide 71573 PROPENE 1559644 OXIDE

L1 410 PROPENE OXIDE

(PROPENE (W) OXIDE)

L2 1 L1 AND HYDROXYLAMINE

=> d fbib abs fhitstr

L2 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:433666 CAPLUS

DN 140:392924

TI Production of aqueous hydrogen peroxide solutions and their use for the epoxidation of olefins

IN Haas, Thomas; Brasse, Claudia; Stochniol, Guido; Glenneberg, Jurgen; Woll, Wolfgang

PA Germany

SO U.S. Pat. Appl. Publ., 7 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 2004101462	A1	20040527	US 2003-669978	20030924
				US 2002-414327P P	20020930
	US 2004127730	A1	20040701	US 2003-669993	20030924
	US 6838572	B2	20050104		
				US 2002-414327P P	20020930
				US 2002-414329P P	20020930

An aqueous hydrogen peroxide solution containing (i) <50 wppm alkali metals, and/or alkaline earth metals, (ii) <50 wppm of amines having a pkB of <4.5 (ammonia or hydroxylamine) or the corresponding protonated compds. in total; and (iii) at least 100 wppm anions or compds. that can dissociate to form anions in total, where the wppm are based on the weight of hydrogen peroxide and the concentration of hydrogen peroxide is >50% by weight based on the total weight of the hydrogen peroxide solution. The hydrogen peroxide solution is produced by hydrogenating a working solution containing at least one active anthraquinone compound and at least one organic solvent, oxidizing the hydrogenated working solution to form H2O2, extracting the H2O2 with water, stabilizing the aqueous solution, concentrating the solution, drying the working solution after extraction, and regenerating the working solution using alumina. A process for preparation of said hydrogen peroxide solution and the use of said solution in a process for epoxidn. of olefins is also disclosed.

```
ΑN
    2004:446920 CAPLUS
DN
    141:7631
ΤI
    Extractive distillation process for the purification of crude propylene
IN
    (Hofen, Willi; Haas, Thomas; Woell, Wolfgang; Thiele, Georg
PA
    Degussa AG, Germany; Uhde GmbH
    Eur. Pat. Appl., 11 pp.
SO
    CODEN: EPXXDW
DT
    Patent
    English
LΑ
FAN.CNT 1
    PATENT NO.
                        KIND
                              DATE
                                          APPLICATION NO.
                                                                DATE
    _____
                        _ _ _ _
                                          -----
                              -----
                                                                20021126
ΡI
    EP 1424332
                        A1
                              20040602
                                          EP 2002-26240
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
    WO 2004048355
                        A1
                              20040610
                                        WO 2003-EP13212
                                                                20031125
```

- W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
 - CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
 - OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
- TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
 - BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG EP 2002-26240 A 20021126
- A process is described for the purification of a crude propylene oxide containing AΒ methanol and acetaldehyde by a continuously operated extractive distillation using an extraction solvent lowering the volatility of methanol and feeding a compound containing an unsubstituted NH2 group (e.g., hydrazine) capable of reacting with acetaldehyde to a distillation column at a point above the feeding point of the crude propene oxide to give a purified propylene oxide containing <100 ppm methanol and <100 ppm acetaldehyde. A process for the catalytic epoxidn. of propylene that includes this purification stage is presented.

Active

Active

L1: (1369357) propene (w) oxide

L2: (27169) l1 and hydrazine

L3: (1687) l2 and acetaldehyde

L4: (7) l3 and (549/?).ccls.

Active

📆 L1: (1369357) propene(w)oxide

L2: (17732) L1 and hydroxylamine

- 🐒 L3: (0) 12 and acetalhyde

SL4: (1314) 12 and acetaldehyde

- 📆 L5: (4) 14 and (549/?).ccls.

EAST BRS

fren

⊕ A Active

L1: (9331) propene

% L2: (2352) L1 and peroxide

🐒 L3: (267) L2 and hydrazine

L4: (1819229) s 13 and acetaldehyde

★ L5: (1819225) s 13 and extractive

★ L6: (1819655) s acetaldehyde and hydrazine

1 L7: (1819243) s 16 and propene

★ L8: (1819240) s 13 and distillation

800 mm - 1 mm